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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/805,193	03/22/2004	Michael Dornhausen	R 304994	1131
7590 04/16/2007 Walter Ottesen Patent Attorney P.O. Box 4026 Gaithersburg, MD 20885-4026			EXAMINER COOLMAN, VAUGHN	
			ART UNIT	PAPER NUMBER
			3618	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		04/16/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/805,193

Applicant(s)

DORNHAUSEN, MICHAEL

Examiner

Vaughn T. Coolman

Art Unit

3618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 February 2007.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 29-42 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 29-42 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 38 and 39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 38 recites "an operator-controlled element" in lines 3 and 4. This limitation is previously recited in line 10 of claim 29. The double inclusion renders claim 38 indefinite and confusing. It is unclear whether there are two operator-controlled elements or just one.

### *Claim Rejections - 35 USC § 103*

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

**Claims 29-31, and 35-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shuman in view of Artis and Bellinger.**

[claims 29, 30, and 41] Shuman discloses a method and an arrangement of limiting the speed (Column 29, line 65) of a vehicle in the presence of environmental conditions with said vehicle being driven by a driver who can be classified by type (column 10, lines 25-35), the method comprising the steps of:

determining, and means for determining, the environmental conditions (Column 30, lines 38-39; column 22, lines 35-40) of said vehicle;

Art Unit: 3618

determining, and means for determining, a maximum permissible speed (Column 30, lines 30-34) in dependence upon the determined environmental conditions (Column 19, lines 28-35); and,

limiting, and means for limiting, the speed of said vehicle to said maximum permissible speed.

However, Shuman does not explicitly disclose disabling the speed limiting when an operator-controlled element is actuated beyond a pregiven threshold angle. Artis teaches the actuation of an operator-controlled element, an accelerator pedal (FIG 2, item 3), to override or disable the limiting of vehicle speed (Column 3, lines 56-61), specifically when the accelerator pedal is actuated beyond a pregiven threshold angle (FIG 2, items 22, 23, 24). The threshold angle is formed by the pedal arm contact points of stops 23 and 24, with the vertex of the angle being the center of the rotational pin 22. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method shown by Shuman, with the accelerator pedal configured to disable the speed limiter as taught by Artis, since such a modification would, according to Artis, allow a user to perform maneuvers or requiring speeds greater than the limit in the event of an emergency (Column 4, lines 12-14).

Shuman also fails to explicitly disclose either carrying out an increase of speed above the maximum permissible speed in form of a ramp or step function, or inputting a value for the slope or step width of the respective acceleration functions based upon the type of driver. Bellinger teaches the use of a step function (see FIG 2 and column 8, lines 12-25) for increasing vehicle speed, i.e. acceleration, above a threshold vehicle speed corresponding to an operator input utilizing an accelerator pedal (Column 2, lines 60-67). His means for doing such are data tables

Art Unit: 3618

defining acceleration curves stored in memory accessible by the vehicle control system (Column 8, lines 26-39). These acceleration curves could easily be correlated with the types of drivers identified by the driver recorder of Shuman. It would have been obvious to do so in the interest of one of Shuman's goals of tailoring the vehicle system to the individual driver. Furthermore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method and arrangement shown by Shuman as modified by Artis, with the mathematical functions for increasing vehicle speed as taught by Bellinger, since such a modification would, according to Bellinger, provide the advantage of realizing lower fuel consumption and longer drive train component life (Column 1, lines 43-49), especially for a driver who tends to be more prudent in his application of the accelerator pedal.

**[claim 31]** Shuman also discloses the further step of determining the environmental conditions in dependence upon at least one of the following: rain intensity (Column 18, lines 50-51), humidity (Column 18, line 48), ambient temperature (Column, lines 46-47), ambient pressure (Column 18, line 42), and ambient brightness (Column 18, line 45).

**[claims 33 and 34]** Shuman further discloses her method having the step of the driver entering preferences, which obviously may be used for customizing operation of vehicle applications. This ability is taken to be the further step of disabling said limiting when at least one of the environmental conditions passes a pregiven threshold. The environmental conditions are taken to be any one of those described above, and the pregiven values are taken to be those entered by the driver of Shuman when setting his preferences. For example, the driver may enter a preference that is the equivalent of ignoring poor road traction as long as visibility is above a certain level.

**[claim 35]** Shuman also includes the further step of disabling the limiting (Column 22, lines 45-55) when a switch-off condition is present (Column 24, lines 4-7).

**[claim 36]** Shuman's method is also inherently capable of programming and determining the switch-off condition being present when at least one of the following occurs: the wheel slip of said vehicle, as monitored by the traction control sensor (FIG 4, item 204-9), dropping below a fifth pregiven value, set by the driver as described above; the instantaneous speed, as monitored by the speedometer (FIG 4, item 204-2), of the vehicle dropping below a sixth pregiven value, set by the driver as described above. These values are communicated to the modeling program and vehicle operations, wherein the speed limiter (FIG 6, item 224-1) resides, and the speed limiting can be discontinued or not, depending on the driver or standard preferences.

**[claim 37]** Shuman further discloses the limiting of the maximum permissible speed only becomes active when the environmental conditions, which lead to the determination of the maximum permissible speed, are present uninterruptedly for a second pregiven time duration; and the instantaneous speed of said vehicle exceeds said maximum permissible speed (Column 22, lines 45-51; column 30, lines 46-61)

Examiner notes that Shuman discusses calculating a data model of the vehicle environment based on environmental conditions that "precisely describes the vehicle, the past, the present, and predicted future environment around the vehicle" and that the data model includes road conditions. It would have been obvious to one of ordinary skill on the art at the time the invention was made to base critical vehicle control decisions on conditions that have been present uninterruptedly for a pregiven time duration such that the present and predicted

Art Unit: 3618

future vehicle environment is accurately represented. It would have been obvious and common sense that the instantaneous light conditions while driving under an overpass or the instantaneous precipitation sensed while driving under a misdirected lawn sprinkler are not indicative of the predicted future vehicle environment. As such, the limiting of the speed of the vehicle would *only* occur when such environmental conditions have been present for a pregiven time duration and when the instantaneous speed exceeds the maximum permissible speed. There obviously would be no need to limit the speed of the vehicle if it is not exceeding the calculated safe speed for the present vehicle environment.

[claims 38 and 39] Shuman's method further includes a traction control application that monitors and controls information from the data model (FIG 5, item 213) relating to vehicle speed, engine speed, road conditions, environmental conditions, and driver commands to provide outputs to the operations applications, including the speed limiter (FIG 6, item 224-1) for the torque to be applied to each wheel, the actuation of the vehicle's mechanical systems (FIG 7, items 208) being controlled by the critical vehicle control program (FIGS 6, 7; item 230). Shuman's method is obviously capable of limiting driver command torque in order to limit vehicle speed. Shuman also fails to explicitly disclose the limiting of speed being realized by limiting a degree of actuation of an operator-controlled element. However, Artis discloses an operator-controlled element, an accelerator pedal, for a vehicle, wherein the limiting of vehicle speed is realized by limiting a degree of actuation of the accelerator pedal (Column 4, lines 9-12). The device of Artis includes two travel parts, the first travel part (FIG 1, item 311) being responsible for limiting the speed of the vehicle. The limit of the degree of actuation occurs in FIG 1 at boundary 310. The driver can appreciably sense the limit due to the appreciably

Art Unit: 3618

stronger effort; therefore the speed is limited by limiting a degree of actuation of the accelerator pedal.

**[claims 40 and 42]** Shuman's method/arrangement is obviously capable of determining and/or recognizing the difference between a "sporty" driver and an "economical" driver based upon the information gathered about each driver by the driver history programming 210(7) and stored in the driver profile data file 215(D). Furthermore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to assign a first value for the slope or step width of the acceleration curve for the "sporty" driver and a second value for the slope or step width of the acceleration curve of the "economical" driver wherein the second value is less than the first value in order to increase driver comfort according to the driver's preferences, which have already been input and stored in the Shuman method/arrangement.

**Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shuman in view of Artis and Bellinger and further in view of Schmitz et al (U.S. Patent No. 6,789,009).**

**[claim 32]** Shuman in view of Artis and Bellinger discloses all of the elements of the claimed invention as described above except for the speed limiting being disabled when the actuation has been present for at least a first pregiven time. Schmitz teaches vehicle speed limiting being disabled when actuation of an accelerator (gas) pedal has been present for at least a first pregiven time (Column 4, lines 51-54). The term ' $ds/dt$ ' defines a change in position over a change in time for the gas pedal, which for the accelerator pedal of Artis is an angular position. For a change in time to be defined for the calculation to occur, it is obvious that there is at least a first pregiven time. It would have been obvious to one having ordinary skill in the art at the time



Art Unit: 3618

the invention was made to modify the method shown by Shuman as modified by Artis, with the determination of position versus time as taught by Schmitz, since such a modification would provide the advantage of not disabling the speed limiting system with an inadvertent depression of the accelerator pedal.

### *Response to Arguments*

Applicant's arguments with respect to claims 29-42 have been considered but are moot in view of the new ground(s) of rejection.

### *Conclusion*

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

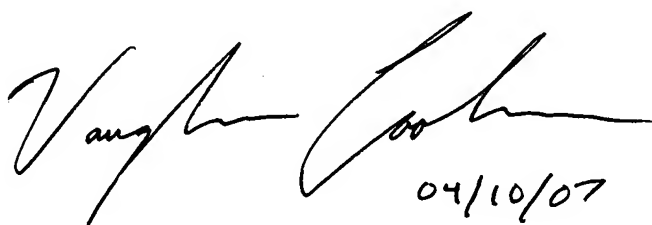
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 3618

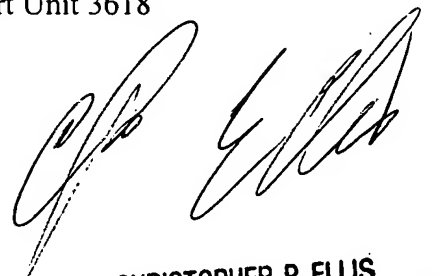
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vaughn T. Coolman whose telephone number is (571) 272-6014. The examiner can normally be reached on Monday thru Friday, 8am-6pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Ellis can be reached on (571) 272-6914. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
vtc 04/10/07

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Art Unit 3618

  
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